

## INTERNATIONAL STUDENTS ELECTRONICS CONTEST “EIFtronic 2019”

### REGULATION OF CONTEST

#### General

These regulations establish the objectives of contest, conditions of participation, organization of contest, evaluation of tasks and award of participants.

#### Aim of contest

To promote interest in electronics, to improve the knowledge and practical skills on electronics, to develop teamwork and foreign language skills.

#### Place and time

Contest will be held at Vilnius Kolegija/University of Applied Sciences, the Faculty of Electronics and Informatics. Address: J. Jasinskio str. 15, Event hall (room 327) Vilnius. Date: **11-12 April, 2019**. Team registration - 18 February 2019 to 18 March 2019 <http://eif.viko.lt> .

#### Contest timetable

**Registration starts on 11 April at 9.30**, Event hall (room 327).

Start of contest – 10.00, Event hall.

Theoretical task. 10.30 – 12.00, room 321.

Practical tasks. 12.15 – 14.00., rooms: 401, 410, and 412.

Lunch – 14.10 - 14.40

Announcement of results and award of winners. 15.00 – 15.40, Event hall, 327

The cultural program - on **12 April**, 10.00 val. – 14.00.

#### Participants

**One team should consist of three I, II or III year students of the bachelor studies and one leader (teacher)**. Students of electronics and electrical engineering study areas are eligible to participate.

#### Contest Commission

Contest commission consists of participating teachers. Commission chairman will be elected by commission members. Commission determines individual tasks winners and team winner.

#### Tasks of contest and proceeding

Tasks of contest will be presented in English. The teams perform these tasks:

##### *Theoretical test*

All team members (students) will perform test at the same time. Test is composed of electronics and electrical engineering study areas: Physics, Electronics, Electrotechnics, Analogical and Discrete Devices, Signals and circuits, Electrical measurements.

##### *1<sup>st</sup> practical task*

##### **Assembling of electronic circuit and measurement**

Using K&H equipment ([http://www.kandh.com.tw/products\\_2.php?prod=70](http://www.kandh.com.tw/products_2.php?prod=70)) assemble the circuit and perform the measurements of parameters.

### ***2<sup>nd</sup> practical task***

#### **Assembling and controlling an electronic circuit with *Arduino UNO***

According to the task assemble a circuit using real details in breadboard, connect it to microcontroller Arduino UNO, and write a program for microcontroller.

### ***3<sup>rd</sup> practical task***

#### **Assembling an electronic device**

According to the task mount and solder electronic device.

**ALL PRACTICAL TASKS WILL BE PERFORMED AT THE SAME TIME. ONE TEAM MEMBER WILL PERFORM ONE PRACTICAL TASK.**

### **Evaluation of tasks**

#### ***Theoretical test***

Theoretical test is worth up to 100 points. All team members will perform the same test, the average of all team members obtained points will be added to final team evaluation.

#### ***Practical tasks***

Each practical task is evaluated individually and obtained points are added to final team evaluation. Task performance time is taken in to account.

#### **1<sup>st</sup> practical task**

Time: 1, 45 minutes.

Task will be evaluated up to 100 points.

#### **2<sup>nd</sup> practical task**

Time: 1, 45 minutes.

Task will be evaluated up to 100 points.

#### **3<sup>rd</sup> practical task**

Time: 1, 45 minutes.

Participants will receive: set of details, printed circuit board, tools, principal electrical scheme and methodical material.

Task will be evaluated up to 100 points: fully functioning device (up to 75 points), quality of soldering (up to 15 points), and quality of mounting (up to 10 points).

The more detailed information about evaluation of tasks will be provided at the meeting of team leaders.

### **Award of participants**

The winner becomes the team with maximal points collected. If there are two or more teams with the same points collected, the higher place will be designated to the team, which have more points on practical tasks. Team winner and most points collected students at individual tasks will be awarded diplomas and sponsors prizes. II<sup>nd</sup> and III<sup>rd</sup> place winners will be awarded diplomas. For all participants and team leaders the certificates of participation will be handed.

**Request:** we would invite to wear team identifications (e.g. T-shirts, scarfs, caps, etc.)

### **You are welcome to participate!**

More detailed information tel. +370-620-58007

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